Amendments to the Claims:

The following listing of claims will replace all prior versions, and listings, of claims in this application.

Listing of Claims

1. (Currently amended) A method for ~~treatment of~~ treating a subject having an apoptosis-related disease ~~in a subject~~ comprising administering to said subject a therapeutically effective amount of an inhibitor of ~~the~~ an isocitrate dehydrogenase (IDH) polypeptide, wherein the IDH polypeptide has an amino acid sequence as set forth in SEQ ID NO:2 or SEQ ID NO:4 or has a sequence which is modified therefrom while retaining the biological properties of IDH, in a dosage sufficient to inhibit expression of the IDH polypeptide, so as to thereby treat the subject.

2. (Currently amended) A method according to claim 1, wherein the inhibitor is administered in conjunction with a chemotherapeutic agent.

3. (Withdrawn– currently amended) A method according to claim 1, wherein the inhibitor is an antibody.

4. (Withdrawn– currently amended) A method according to claim 1, wherein the inhibitor is a chemical molecule selected from the group consisting of 2-(4-bromo-2,3-dioxobutylthio)-1, N6-ethenoadenosine 2',5'-bisphosphate, NADP oxoglutatrate, o-(carboxymethyl) oxalohydroxamate, oxalylglycine, 3-bromo-2-ketoglutarate, beta-mercapto-alpha-ketoglutarate, beta-methylmercapto-alpha-ketoglutarate, beta-methylmercapto-

alpha-hydroxyglutarate, adriamycin and alpha-methylisocitrate.

5. (Withdrawn– currently amended) A method according to claim 1, wherein the inhibitor is an AS fragment comprising consecutive nucleotides having ~~the~~ a sequence as set forth in SEQ ID NO:5.

6. (Currently amended) A method according to claim 1, wherein the apoptosis-related disease is a cancer.

7. (Currently amended) A method for potentiating a chemotherapeutic treatment of a subject having an apoptosis-related disease ~~in a subject~~ comprising administering to said subject a therapeutically effective amount of an inhibitor of ~~the~~ a human isocitrate dehydrogenase (IDH) polypeptide in conjunction with a chemotherapeutic agent so as to thereby treat the subject; wherein the IDH polypeptide has an amino acid sequence as set forth in SEQ ID NO:2 or SEQ ID NO:4 or has a sequence which is modified therefrom while retaining the biological properties of IDH.

8. (Withdrawn– currently amended) A method according to claim 7, wherein the inhibitor is an antibody.

9. (Withdrawn– currently amended) A method according to claim 7, wherein the inhibitor is a chemical molecule selected from the group consisting of 2-(4-bromo-2,3-dioxobutylthio)-1, N6-ethenoadenosine 2',5'-bisphosphate, NADP oxoglutatrate, o-(carboxymethyl) oxalohydroxamate, oxalylglycine, 3-bromo-2-ketoglutarate, beta-mercapto-alpha-ketoglutarate, beta-methylmercapto-alpha-ketoglutarate, beta-methylmercapto-alpha-hydroxyglutarate, adriamycin and alpha-

methylisocitrate.

10. (Withdrawn– currently amended) A method according to claim 7, wherein the inhibitor is an AS fragment comprising consecutive nucleotides having ~~the~~ a sequence as set forth in SEQ ID NO:5.

11. (Currently amended) A method according to claim 7, wherein the apoptosis-related disease is a cancer.

12. (Withdrawn– currently amended) An antisense oligonucleotide capable of inhibiting the expression of the IDH polypeptide, having ~~the~~ a sequence as set forth in SEQ ID NO:5.

13. (Withdrawn– currently amended) An expression vector comprising a nucleic acid ~~molecule~~ encoding the antisense oligonucleotide of claim 12.

14. (Withdrawn– currently amended) A process for determining the susceptibility of a subject to a chemotherapeutic treatment of an apoptosis-related disease comprising:
(a) providing ~~the~~ an average, normal level of the IDH polypeptide in ~~the~~ cells of healthy subjects;
(b) determining the level of the IDH polypeptide in said subject; and
(c) comparing the level~~s~~ obtained in (a) and in (b) above, a low level of IDH polypeptide in said subject as compared to the level in healthy subjects indicating a susceptibility of said subject to ~~a~~ the chemotherapeutic treatment of said apoptosis-related disease.

15. (Withdrawn– currently amended) A process for determining the susceptibility of a subject to a chemotherapeutic

treatment of an apoptosis-related disease comprising:

(a) providing ~~the~~ an average, normal level of mRNA encoding the IDH polypeptide in ~~the~~ cells of healthy subjects;

(b) determining the level of mRNA encoding the IDH polypeptide in said subject; and

(c) comparing the levels obtained in (a) and in (b) above, a low level of mRNA encoding IDH in said subject as compared to the level in healthy subjects indicating a susceptibility of said subject to ~~a~~ the chemotherapeutic treatment of said apoptosis-related disease.

16. (Withdrawn– currently amended) A process for determining the efficacy of a chemotherapeutic treatment administered to a subject comprising:

(a) determining the level of the IDH polypeptide in the subject prior to a treatment;

(b) determining the level of the IDH polypeptide in the subject after the treatment; and

(c) comparing the level~~s~~ obtained in (a) and in (b) above, a high level of IDH polypeptide prior to the treatment as compared to the level after the treatment indicating efficacy of the treatment.

17. (Withdrawn– currently amended) A process for determining the efficacy of a chemotherapeutic treatment administered to a subject comprising:

(a) determining the level of ~~the~~ mRNA encoding an IDH ~~mRNA~~ polypeptide in the subject prior to a treatment;

(b) determining the level of the IDH-encoding mRNA in the subject after the treatment; and

(c) comparing the levels obtained in (a) and in (b) above, a high level of IDH-encoding mRNA prior to the treatment as compared to the level after the treatment indicating

efficacy of the treatment.

18. (Withdrawn) A process of diagnosing a cancer in a subject comprising:

(a) providing ~~the~~ an average, normal level of the IDH polypeptide in ~~the~~ cells of healthy subjects;

(b) determining the level of the polypeptide in said subject; and

(c) comparing the level~~s~~ obtained in (a) and in (b) above, wherein a high level of the IDH polypeptide in said subject as compared to the level in healthy subjects is indicative of ~~a~~ the cancer.

19. (Withdrawn– currently amended) A process of diagnosing a cancer in a subject comprising:

(a) providing ~~the~~ an average, normal level of a polynucleotide encoding the IDH polypeptide in ~~the~~ cells of healthy subjects;

(b) determining the level of the polynucleotide in said subject; and

(c) comparing the level~~s~~ obtained in (a) and in (b) above, wherein a high level of the polynucleotide in said subject as compared to the level in healthy subjects is indicative of ~~a~~ the cancer.

20. (Withdrawn) A process for obtaining a compound which modulates apoptosis in a cell comprising:

(a) providing cells which express the human IDH polypeptide;

(b) contacting said cells with said compound; and

(c) determining the ability of said compound to modulate apoptosis in the cells.

21. (Withdrawn) A process according to claim 20 comprising:
(a) providing test cells and control cells which express the human IDH polypeptide at a level at which approximately 50% of the cells undergo apoptosis in the presence of an apoptosis-stimulating agent;
(b) contacting said test cells with said compound;
(c) treating said cells in conjunction with step (b) with an amount of apoptosis-stimulating agent capable of causing apoptosis in the control cell; and
(d) determining the ability of said compound to modulate apoptosis in the test cell.

22. (Withdrawn) A process for obtaining a compound which promotes apoptosis in a cell comprising:
(a) providing a test cell which expresses the human IDH polypeptide and a control cell which does not express the human IDH polypeptide;
(b) contacting said cells with said compound;
(c) treating said cells in conjunction with step (b) with an amount of apoptosis-stimulating agent capable of causing apoptosis in the control cell but not in the test cell in the absence of said compound; and
(d) determining the ability of said compound to promote apoptosis in the test cell.

23. (Withdrawn) A process for obtaining a compound which modulates apoptosis through the human IDH polypeptide comprising:
(a) measuring the activity of the human IDH polypeptide, or a fragment thereof having viability activity,
(b) contacting said polypeptide or fragment with said compound; and
(c) determining whether the activity of said polypeptide or

fragment is modulated by said compound.

24. (Withdrawn) A process for obtaining a compound which modulates apoptosis through the human IDH polypeptide comprising:
(a) measuring the binding of the human IDH polypeptide, or a fragment thereof having viability activity, to a species to which the human IDH polypeptide interacts specifically in vivo to produce an anti-apoptotic effect;
(b) contacting said polypeptide or fragment with said compound; and
(c) determining whether the activity of said polypeptide or fragment is affected by said compound.

25. (Currently amended) The method according to claim 1, wherein the inhibitor is an siRNA for ~~the~~ an IDH gene encoding an IDH polypeptide having an amino acid sequence as set forth in SEQ ID NO:2 or SEQ ID NO:4 or having a sequence which is modified therefrom while retaining the biological properties of IDH.

26. (Currently amended) The method according to claim 7, wherein the inhibitor is an siRNA for ~~the~~ an IDH gene encoding an IDH polypeptide having an amino acid sequence as set forth in SEQ ID NO:2 or SEQ ID NO:4 or having a sequence which is modified therefrom while retaining the biological properties of IDH.

27. (New) The method according to claim 25, wherein the inhibitor is an siRNA comprising nucleotides having a nucleotide sequence as set forth in SEQ ID NO:6.

28. (New) The method according to claim 26, wherein the

inhibitor is an siRNA comprising nucleotides having a nucleotide sequence as set forth in SEQ ID NO:6.